Drug Abuse

Recommendations for California Treatment and Research Facilities

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■ *The California Legislature has directed the Regents of the University of California to collect and act as an information exchange on research and services relating to drug abuse, and to provide advice with respect to fields in which research is needed.*

The current report, prepared under that directive, outlines the method by which data on drug abuse research and treatment facilities will be collected, and how this data will be prepared so that appropriate recommendations can be made to the state legislature.

This initial report also outlines areas of immediate concern in the area of drug abuse for the benefit of the state legislature. These areas include current state policies which interfere with investigators competing for federal research funds; pharmacological misclassification of various agents of drug abuse (including marijuana, cocaine and mescaline); lack of awareness of the major adolescent drug abuse problem in California, namely that associated with methamphetamine abuse; the inconsistent and destructive effects of current Nalline clinic programs, and legal restraints which interfere with the proper treatment of drug abusers by physicians trained in treating such patients.

THE CALIFORNIA LEGISLATURE, by the addition of Section 210 to the Health and Safety Code in 1967, directed the Regents of the University of California to ". . . collect, and act as an information exchange for, information on research and service projects completed or in progress relating to drug abuse . . ." and to provide advice with respect to the areas in which research is needed. The authorized activity, called the "Drug Abuse Information Project," is now being carried out at the San Francisco Campus of the University of California under our direction.

This report is submitted pursuant to the requirements of the legislation.

From the Pharmacology Laboratory, University of California Medical Center, San Francisco.

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Plans for the Project

1. *Organization.* The regents of the university have allocated funds for the operation of the Infor-

mation Project for the balance of this fiscal year, and funds have been requested for fiscal 1968-69. The project was activated in December 1967. The address of the project is: Department of Pharmacology, University of California Medical Center, San Francisco, California 94122, and the telephone number is (415) 666-1951.

Dr. Frederick H. Meyers, professor of pharmacology, and Dr. David E. Smith, clinical instructor in pharmacology and physician to the Drug Abuse Screening Unit of the San Francisco General Hospital, will devote part-time to the project. Fortunately, a person able to help with substantive as well as clerical matters has been employed.

2. *Operation.* Information will be solicited from each individual or agency identifiable as associated with research or service in the area of drug abuse. These are startlingly large in number. Interested individuals may be working in medicine, pharmacology, chemistry or the social or behavioral sciences, or be involved in police, correctional or rehabilitative efforts.

Directors of research of several of the large state agencies have already been actively cooperative. A questionnaire will be distributed to individual research and service efforts and community studies.

The data will be used to carry out the intention of the legislature:

(a) By providing to any interested investigator information about projects related to his own. Data submitted by investigators not associated with any agency of the state will be regarded as privileged; that is, individuals carrying out related or even highly similar projects will be identified but actual research plans will not be disclosed.

(b) By the collection and systematic analysis of reported drug abuse, arrive at conclusions which scattered, individual or institutional data cannot reveal;

(c) By encouraging the more consistent and perhaps more uniform reporting of results of treatment programs and studies of incidence;

(d) By the preparation of a report embodying our interpretation of the collected data and the suggestions of the contributors.

Reasons for Preliminary Report

Since authorization and funds for this project have only recently become available, this report obviously is not based on data collected in the manner described above. Nevertheless, a fraction of the research and service programs existing in the state are known to the directors of this project, either through scientific publications or through personal contact.

Two important rationalizations or goals justify preparation of a report at this time.

1. *Provision of information to agencies and individuals studying drug abuse.* This or a similar document will be used to inform those concerned about the function assigned this project. The discussions of some areas of public policy below will certainly stimulate the submission of suggestions and additions along with the data about research or service activities in progress. Such reaction should help us to move toward presentation of a consensus in some areas and to present most of the divergent views in others.

2. *Information about immediate legislative problems.* The introduction to the drug-using groups of drugs not presently regulated and the content of some interim committee hearings suggest that consideration of certain problems will occur during the present regular session. This report presumes to present certain definitions as well as to provide the suggestions requested by the enabling legislation.

Some Definitions and a Survey of the Problem

The definitions and concepts outlined below will, initially at least, underlie the organization of the data collected.

The key idea is that there is not a single problem of drug abuse but a variety of problems involving different agents and with different patterns of drug use. These different problems involve entirely different degrees of danger to the drug user and to society. The concept of the multiplicity of problems explains the frequent reference in this report, and in the work of others, to the consistency or inconsistency of present regulations and legal definitions. The term narcotics, for example, as now defined in the Health and Safety Code, encompasses a diverse group of drugs that would not be classified into a single category by the scientific community.

1. *Factors in the Development of Drug Abuse.* The properties of the drug are of obvious importance in the development of a pattern of drug misuse. Yet, the use of a particular drug is not uniformly distributed throughout our society. Studies of the epidemiology of drug abuse show

an irregular distribution of the problem and suggest that some groups and certain individuals are more susceptible than others. In order to understand the development of the several different patterns of drug misuse, one must consider three factors or influences.

(a) Drug Factors. The pharmacological effects of a drug are of great importance in determining its potential for misuse. However, drugs that are commonly misused are from different pharmacologic classes, and indeed the effects of one group may be diametrically opposite to those of another group of misused agents. For each drug or drug class the hazard to the user and to society must be evaluated, and this evaluation will be quite different for different drugs. The several drug classes are listed in the following section.

(b) Individual (Psychological) Factors. Since, however, drug misuse does not reflect simply the availability of the drug, additional factors must be operating to determine individual liability. Alcohol, the most commonly misused drug, is freely available to all members of our culture, but our patterns of alcohol use vary widely. Some individuals reject it; some use it temperately and socially; some use it episodically to excess; and a tragically large number develop a compulsive pattern of misuse which destroys their own and other lives.

(c) Group (Sociologic) Factors. Individuals form attitudes and react as members of groups. The attitudes and problems of their group condition their use of drugs. Heroin misuse, now declining in incidence, was predominantly a disease or crime of the ghettos of large cities. Other ethnic or religious groups in our society are statistically unusually susceptible or resistant to the development of chronic alcoholism.

The attitudes of the dominant group in our culture are reflected in the laws, such as those that are permissive of alcohol, tobacco, and other social or recreational drugs which are actually quite harmful. There are, of course, sub-groups within our pluralistic society which feel that the prohibitions against their social drugs are arbitrary and unjustified by the actions of the drug. This conflict between groups is the basis for the current criticism of the laws regulating the use of marijuana.

2. *Drug Classes.* The many individual drugs subject to misuse can be placed in a few groups or classes of drugs. The following classification introduces only one area of controversy, and this is clearly identified.

(a) Sedatives. This class of drugs might also be labeled sedative-hypnotic or depressants. Included are alcohol, barbiturates and similar sleeping pills, the hydrocarbons found in glue and elsewhere, and marijuana. With increasing doses, each of these agents first causes sedation and relief from anxiety. Larger doses lead to a stage of disinhibition, with disturbance of psychomotor performance and judgment. Still larger doses may produce coma and even death. The hazard of these drugs to individuals and to society through the precipitation of irresponsible acts is not uncommon.

The classification of marijuana in this category is controversial. Many students with experience and competence in this area feel that the classification of marijuana must await further research. In our judgment, the confusion is due in large part to the low potency of the "grass" commonly available today. Studies in other cultures, for example throughout the Muslim world and India where potent preparations of the nearly pure resin are used, appear to establish the same sequence of effect as described above, and to further establish the potential for compulsive misuse of the potent preparation by some individuals. It must be acknowledged that the brief duration of action and low potency of available marijuana preparations, and its freedom from the nutritional side effects of alcohol, do indeed suggest a lesser hazard in the use of marijuana. In any case, its present legal classification as a narcotic comparable to heroin appears to be unsupported by any authority outside of the enforcement area.

(b) *Narcotics or Opiates.* Heroin, morphine or other alkaloids of opium, and various synthetics are dangerous because of the great potential for compulsive misuse. Nevertheless, the danger lies not so much in the drug effect itself, as in the associated criminal activity generated by the expense of the habit. The user is depressed by the drug and not led to anti-social behavior during the action of the drug.

(c) *Major Stimulants.* For a number of reasons, methamphetamine (speed, crystal) has replaced heroin as the drug most likely to be injected compulsively. The paranoid state engendered by large and repeated doses is of major social concern. The oldest drug of this class of pure stimulants is cocaine; which is legally classified as a narcotic. *Meth*amphetamine (Methedrine, Desoxin) or *dextro*amphetamine (Benzedrine, Dexedrine) are also abused by oral administration

and more than an occasional case has followed therapeutic administration. Of the drugs encountered by the exploring or experimenting young person today, methamphetamine appears to us to be by far the most threatening.

(d) *Minor Stimulants.* Minor central nervous system stimulants, such as nicotine in cigarettes and caffeine in coffee, are listed here for two purposes. First, to establish that there are drugs accepted as social or recreational agents. Second, to suggest that an understanding of the problem and the treatment of compulsive drug misuse is perhaps best developed by studying similar compulsive acts in ourselves. The compulsive use of cigarettes may be an act senselessly repeated without great satisfaction. The same statement describes the compulsive use of illegal drugs.

(e) *Hallucinogens.* LSD is used to cause distortion in perception and may, in large doses, result in the hallucinatory, paranoid state referred to as an effect of methamphetamine. In fact, at least two substances (STP, MDA) chemically related to methamphetamine, have recently been used in lieu of LSD. With rare exception the use of LSD is episodic since at least three days must elapse between doses if the state of disordered perception is to be experienced.

3. *Patterns of use.* The episodic use of marijuana or alcohol and the ritualistic use of LSD represent a lesser evil than the development of the compulsive use of a drug such as methamphetamine, alcohol or heroin. Yet laws which punish possession for use make no distinction between the pattern of intended use. The State of California has already moved to treat compulsive drug misuse as an illness rather than a crime, although existing laws are inconsistent and limiting of this progress.

Possible Areas of Immediate Concern

Several areas of immediate need or concern are now discussed under the general headings of research, treatment and service, and education. They are presented at this time in part because they may be of immediate interest, and in part to solicit reactions preparatory to our subsequent reports.

Research

This report will provide "advice with respect to the areas in which research is needed" as requested by AB 1399, with the caution that the fragments are based on consultation with only a small fraction of interested investigators.

1. *Distribution of Research Effort.* The difficulties involved in increasing the amount of research in this area supported by state funds are apparent. Neither can the amount of federal funds allocated to the area of drug abuse be predicted at this time. The National Institute of Mental Health (NIMH) has recently been reorganized and now includes a Center for Studies of Narcotic and Drug Abuse. (This Center has announced its intention of encouraging research on marijuana, but for reasons mentioned below, California investigators will compete poorly for these funds.) The distribution or direction of the research efforts within the state could be altered, whether the total amount is increased or not, by reallocating funds to emphasize current problems and attitudes.

(a) *Previous Emphasis.* Research that is supported or encouraged by the state unduly emphasizes enforcement needs and punitive attitudes. The continued emphasis on heroin does not reflect the changing pattern of drug misuse. The emphasis on diagnosis, that is detection, of drug use, and on surveillance of individuals has led to disproportionate emphasis on the chemical approach by scientists.

(b) *Suggested Approach.* With the exception of badly needed studies on marijuana, information about drugs is adequate to permit treatment or abatement efforts. Compulsive drug use should be regarded as symptomatic of some underlying difficulty and emphasis placed upon the psychiatric and social factors involved. Control and treatment measures undertaken by any agency, but especially the large state-supported rehabilitative efforts, should be evaluated more exactly in order to permit expansion of successful techniques at the expense of less effective measures. Since large numbers of young people are now involved in experimentation with nominally illegal drugs, local groups and agencies should be encouraged to carry out research in the sense of incidence studies and determination of the fate of young drug users.

2. *Restriction of Research on Marijuana.* A recent addition to the Health and Safety Code (11655) has had the effect of inhibiting research on marijuana at the very period when it needed most to be encouraged. Practically speaking, only schools of medicine can possess marijuana for investigative purposes and even in this situation a research proposal must be approved by a technically untrained enforcement officers. Individuals who have used large amounts of heroin and metham-

phetamine in their laboratory and clinical research without untoward incidents find marijuana difficult to obtain. For example, a private laboratory awarded a $70,000.00 annual contract by the NIMH is legally forbidden to carry out that part of the contract involving the chemical study of marijuana. No restraint beyond the requirements of careful accounting for supplies of the drug would appear necessary. At the very least, the review of the scientific merits of the project should be carried out by a group of the investigators' scientific peers rather than by a single administrator.

3. *Evaluation of "Nalline" Programs.* The injection of a narcotic antagonist to determine whether probationers are using a narcotic is still widely used in California. This test will only detect the use of "narcotics" in the medical sense; that is, heroin but not methamphetamine or marijuana. The antagonist is not completely free of narcotic effects and a fraction of the subjects experience a heroin-like effect. If the limitations of the test and the change in the pattern of drug use are not recognized, the test may be applied to users of drugs other than heroin. In at least one county marijuana users may be paroled to the Nalline program, a frightening error but legal within the definitions established by the special legislation afforded the Nalline test.

An evaluation of the Nalline programs and the imposition of some slight restrictions appear justified at this time.

Service and Treatment

During the past 47 years, federal and state laws have had the effect of isolating or alienating the physician and the therapist from the drug user. Interest in and willingness to work with problems of drug abuse are increasing as more and more children of the middle class become involved. Development of closer relations between counselors from the "straight" world and members of the drug-using sub-culture can be accelerated by legislative action.

1. *Revision of Narcotic and Dangerous Drug Laws.* The narcotic and dangerous drug laws have evolved until they now include what can only be called pharmacologic inconsistencies and even absurdities. The Narcotic Law properly defines heroin as a narcotic but defines marijuana, a drug with entirely different properties and patterns of use, in the same way and assigns equally severe penalties for its possession and sale. Cocaine, a central nervous stimulant, is also defined as a narcotic, but methamphetamine, a far more widely used stimulant, is defined as a dangerous drug. Mescaline is a stimulant and hallucinogen, the use of which is actually legal for one group within the state. Yet it is defined as a narcotic, while the more commonly available LSD and the more or less equivalent tryptamine derivatives are classed as dangerous drugs.

(a) *Penalties for Possession of Marijuana.* Suggestions that marijuana be "legalized" have been misleading to the extent that they suggest that a total absence of regulation of marijuana would be desirable. However, a very immediate need is to bring the penalties for the possession or use of marijuana into concordance with the dangers inherent in the drug, rather than maintaining the position that it is equivalent in its hazards to heroin. A quite startling number of young people have had experience with marijuana and recognize the inaccuracy of such claims. The present laws threaten to further alienate an entire generation and to destroy respect for all laws regulating the use of drugs and, indeed, for all drug information provided by established agencies.

(b) *Possession as a Crime.* The Congress has assigned the control of those drugs included in the California Dangerous Drug Law to a Bureau of Drug Abuse Control in the Food and Drug Administration. Possession for use of these drugs is not defined as a crime, but penalties for possession for sale or for importation remain. If our goal is cure or abatement rather than punishment, such legislation entails no loss and makes the provision of treatment much simpler.

(c) *Reporting and Prohibition of Treatment of Addicts.* The Narcotic Laws currently forbid treatment of the "narcotic addict" outside of specified institutional settings and require that an addict be reported by name. "Addict" is not defined by the law, but "narcotic" includes marijuana as well as heroin. These restrictions are a source of concern to people working with drug users and have been one of the devices isolating the users from medical care. The parallel federal law has not been upheld in the courts but the "Warning on Narcotic Law" included in the directory distributed by the State Board of Medical Examiners warns in bold type, "Attention is called to the prohibition of treatment of ambulation narcotic addicts." In practice, enforcement agencies have modified the law but such

modification would appear to be a legislative function.

2. *Establishment of Treatment Centers and Programs.* The feeling that drug abuse is purely a criminal matter appears to be less tenaciously held as the size of the problem increases and the general citizenry sees their own children involved. If the alternate medical or therapeutic approach is to have any success it must be supported beyond the present level, even if such support is obtained at the expense of enforcement efforts. At this time, adequate government support is not available. For example, the State Department of Public Health is not authorized to maintain a section on problems of drug abuse, and city-supported facilities in San Francisco have actually been decreased recently.

In addition to the support now provided through the Department of Mental Hygiene or the California Youth Authority, the state might consider a subsidy to stimulate local activity. The activities of the Bureau of Alcoholism of the State Department of Public Health and the matching programs that it administers provide a model that could be modified or expanded.

In passing, it should be emphasized that all of the problems discussed thus far are quantitatively much less important than alcoholism. Research and treatment in that area should certainly not be curtailed because of the greater emotional impact of the illegal drugs. The problems of alcohol abuse and the abuse of other drugs are so similar that a single Bureau of Alcoholism and Drug Abuse, rather than separate offices, should be considered by every agency.

(a) Which problems require treatment? Different drugs and different patterns of use require different treatment facilities. The variety of facilities, some within the user's community and some in centralized hospitals, which are needed relate directly to the variety of therapeutic problems.

(1) Acute drug reactions. Acute intoxication by stimulants or depressants and adverse reactions to LSD or other hallucinogens are usually treated in a public hospital. If the detoxification unit is separately organized and a physician familiar with drug users is available, the acute treatment may possibly require less time but, more importantly, a larger fraction of the patients can be induced to accept after-care.

(2) Compulsive drug users. The treatment of heroin and methamphetamine use is extremely difficult. The legislature has already reduced somewhat the restriction on treatment. Continued encouragement of state hospitals and voluntary agencies is essential. In addition, "Half-way Houses" and other community psychiatric facilities function in this area.

(3) Problems unrelated to drug abuse. Very few young drug users solicit help for the problem of their drug use. They do request help for psychiatric problems that antedate their drug use. If drug use is largely symptomatic, expansion of general facilities will have an impact on drug use.

(4) Individuals who acknowledge no illness. For the foreseeable future there will continue to be a large group of young drug users who regard themselves as neither criminal nor ill. The principal drug used by this group is marijuana. A smaller group uses LSD, with the nominal goal of reaching self-understanding or with a philosophic or religious motivation.

It is easy to overemphasize the threat of this group since they—our children—are so virulently anti-middle class. The problems of raising our children cannot, however, be reduced to a matter of pharmacology nor can we incarcerate a quarter of the juvenile population. Any psychiatric remedy for the situation must be applied to the parents as well as to the youth. Treatment is important, but education will probably be far more important for this group and their parents.

Education

The severely punitive approach to problems of drug abuse followed for the past few years has obviously not prevented the increased use of marijuana, LSD and other drugs. The rigorous laws have separated the drug-using patient from the therapist and from dependable sources of information. Distrust of enforcement agencies and of most general (if emotionally based) public attitudes drives the young user to the drug-using subculture for information.

If information from an established source is inaccurate for one drug known to young persons, they will subsequently reject more accurate data about another drug. Again, marijuana is the drug of central importance because, if our information about it is judged to be palpably inaccurate, our warnings about LSD, methamphetamine, and others, are also rejected. Self-experimentation with drugs is thereby encouraged since it is judged to be the only dependable source of information.

If our goal is control and prevention rather than retribution, only widespread education and counseling offer real hope. Effectiveness of such efforts will be somewhat limited by the extent to which drug use is symptomatic of underlying social and individual problems, but authoritative information about drugs and drug laws would probably reduce self-experimentation with drugs. Several studies (notably the one conducted by the Juvenile Justice Commission of San Mateo County) emphasize that the teenager's own ethical system and the fear of *physical* consequences are far greater deterrents to drug use than parental attitudes or legal consequences.

Several school districts are attempting to modernize their instruction and to provide counseling in addition to the required hours of instruction. In most communities, however, assistance from experienced workers from one of the treatment facilities described above will be required.

The effort of the State Department of Education to provide the badly needed manual of information for teachers and others has been disappointing. The book was prepared by two inexperienced gentlewomen who apparently were more concerned with "public acceptance" than with the technical advice of their advisory committee.

CORRECTION

In the article, "Re-Examination and Re-Certification of Physicians" by Justin J. Stein, M.D., in the August issue of CALIFORNIA MEDICINE, reference 6 (page 177) indicated that the work referred to was originally published in the *Bulletin of the American College of Surgeons.* It was not. It was reprinted in the *Bulletin of the American College of Surgeons,* with permission, from *Northwest Medicine,* 66:715-717, August, 1967, where it originated.